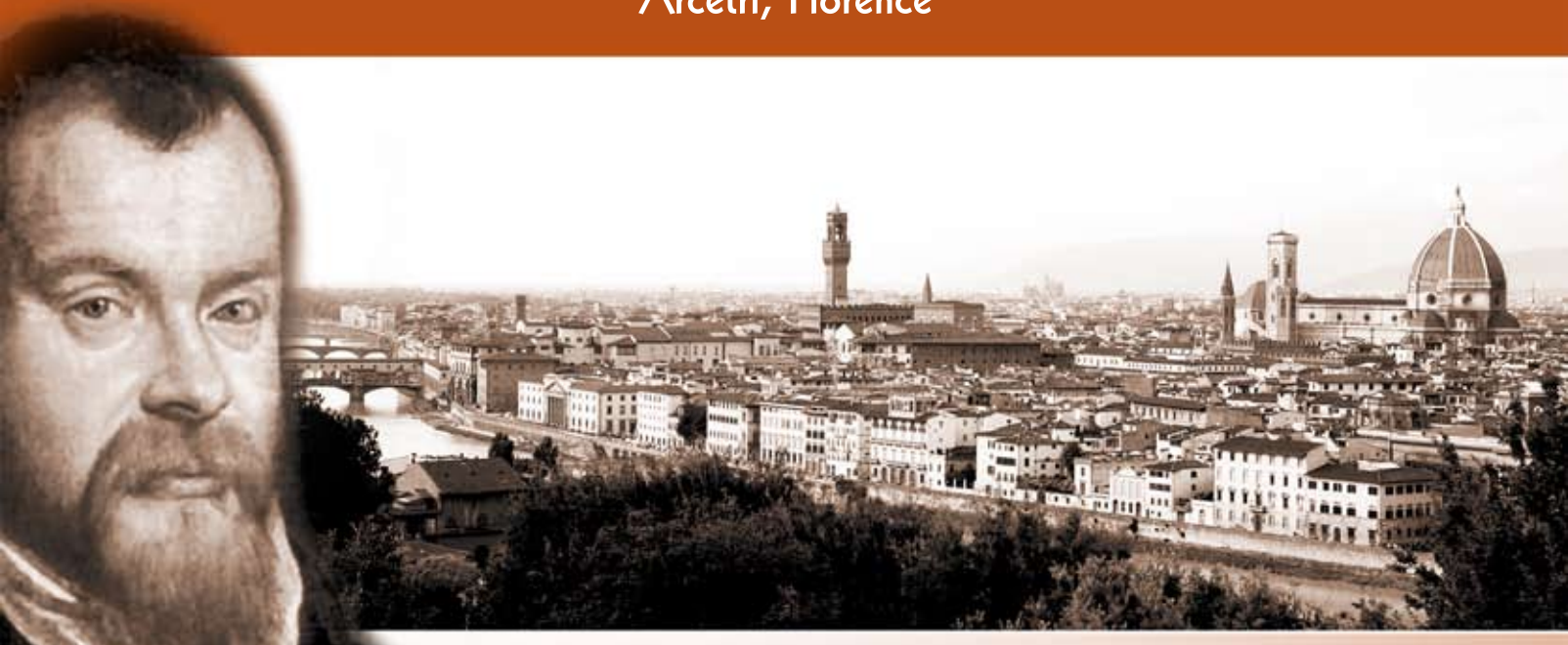
The Galileo Galilei Institute for Theoretical Physics
Arcetri, Florence



Indirect Searches for New Physics at the time of LHC

February 15, 2010 - March 26, 2010

Low energy precision experiments test the predictions of the Standard Model to a high level of accuracy. They also put stringent constraints on the possible New Physics, the masses of the new particles it entails, their couplings, the symmetries it may or may not violate. The indirect searches are therefore complementary to the direct searches for new particles at the Tevatron and the LHC but they can in principle be sensitive to much shorter scales than the latter experiments. In early 2010 the physics results of the B factories and of Tevatron will be close to final and the first results of several flavour physics experiments may become available. At the same time Tevatron should provide more precise values of the W and top masses, as well as important constraints on the Higgs mass range.
The convergence of these new precision data with the first findings of LHC experiments should make 2010 an ideal moment for an investigation of the interplay between high energy frontier (direct searches) and high intensity frontier (indirect searches).

The main topics of the workshop include:

- Interplay between low energy and high p_T physics in constraining New Physics or, in case of discoveries, in understanding its detailed structure
- Flavour and CP violation in the quark and leptonic sectors
- CP violation in flavour conserving transitions (EDMs)
- Precision studies in flavour and CP conserving observables like (g-2) of the muon

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